

REMARKS

Applicants' representative would like to thank the Examiner Tanner for the courtesies extended during a telephonic interview on January 18, 2006.

At the outset, Applicants note that the Office Action Summary mailed October 19, 2005, lists Claims 1-14 as pending in the application. Applicants respectfully submit, however, that Claims 1-15 are pending in the application, as new Claim 15 was added in the Amendment filed July 25, 2005.

The following remarks are believed to be fully responsive to the outstanding Office Action and are believed to place the application in condition for allowance. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the remarks contained herein.

REJECTION UNDER 35 U.S.C. § 103

Claims 1, 9-10 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sharood et al. (U.S. Pat. No. 6,453,687) in view of Wiggs (U.S. Pat. No. 4,463,571).

Claims 2-6 and 11-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sharood et al. in view of Wiggs as applied to Claim 1 above, and further in view of Katsuki (U.S. Pat. No. 6,158,230).

Claims 8 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sharood et al. in view of Wiggs as applied to Claim 1 above, and further in view of Day III et al. (U.S. Pat. No. 4,387,368).

Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Sharood et al. in view of Wiggs and Katsuki as applied to Claim 2 above, and further in view of Day III et al.

These rejections are respectfully traversed.

Independent Claim 1 calls for a diagnostic system for a compressor assembly having a compressor and a motor protector. The diagnostic system includes logic circuitry associated with the motor protector that analyzes the status of the motor protector as a function of time to identify a specific fault cause. Similarly, independent Claim 10 calls for a method of diagnosing a compressor assembly including a compressor and a motor protector. The method includes analyzing a status of the motor protector as a function of time and identifying a compressor fault cause based on the analysis.

The claimed diagnostic system utilizes logic circuitry associated with a motor protector to identify a specific fault cause of a compressor. The claimed system and method identify a specific fault cause or compressor fault by analyzing a status of the motor protector as a function of time.

Applicants submit that there is no teaching, suggestion or motivation to combine the teachings of Sharood with Wiggs and that such a combination, even if suggested, fails to teach or suggest a diagnostic system for a compressor including logic circuitry associated with a motor protector of the compressor or a system or method that analyzes a *status* of the *motor protector* as a function of time to identify a compressor fault or specific fault cause.

Sharood teaches a retrofit plug (2650) for use in monitoring a refrigeration appliance (2600). See Sharood at Col. 27, Ins. 1-5. Sharood notes that the retrofit plug may be used to identify a door open condition of a refrigerator if a compressor of the refrigerator is “on longer than expected.” See Sharood at Col. 27, Ins. 60-65. In this manner, Sharood teaches a retrofit plug for use with a refrigerator that monitors a *compressor* of the refrigerator to determine if a door of the refrigerator has been left open. Sharood fails to teach or suggest monitoring a *motor protector* of a compressor.

Wiggs teaches a diagnostic monitoring system for a heat pump system having a high pressure switch (22) and a low temperature switch (36). See Wiggs at Col. 3, Ins. 1-5, and Col. 4, Ins. 1-3. The high pressure switch and the low temperature switch are monitored such that if either switch is opened, a low voltage signal is produced to identify which switch has opened. See Wiggs at Col. 4, Ins. 3-12. In this manner, Wiggs teaches a diagnostic system that monitors a high pressure switch and a low temperature switch to help distinguish between a high pressure condition and a low temperature condition when servicing a compressor associated with the heat pump system. Wiggs fails to teach monitoring the status of the high pressure switch or the low temperature switch as a function of time, but rather, discloses that the high pressure switch and the low temperature switch are “continuously monitored.” See Wiggs at Col. 1, Ins. 63-67, and Col. 2, Ins. 1-2.

Applicants respectfully submit that there is no teaching, suggestion, or motivation to modify the retrofit plug of Sharood to include the diagnostic monitoring system of Wiggs. As stated above, Sharood briefly mentions that the retrofit plug may be used to detect a door open condition of a refrigerator. Providing the retrofit plug with the ability

to monitor high and low pressure switches of a compressor would not enhance the ability of Sharood's retrofit plug to detect the door open condition. Because Sharood fails to teach or suggest monitoring switches, but simply detects when a door open condition exists, Applicants respectfully submit there is no teaching, suggestion, or motivation to provide the retrofit plug of Sharood with the ability to monitor switches associated with a compressor. Therefore, Applicants respectfully submit that there is no teaching, suggestion, or motivation to combine Sharood and Wiggs.

In addition to the foregoing, Applicants respectfully submit that the combination of Sharood and Wiggs fails to teach or suggest each of the elements of the claimed invention. Sharood fails to teach analyzing a status of a *motor protector* as a function of time and only discloses monitoring a *compressor* to determine whether the compressor is "on longer than expected." Wiggs simply teaches monitoring a high pressure switch and a low temperature switch to distinguish between a high pressure condition and a low temperature condition, but fails to teach analyzing the status of the high pressure switch or the low temperature switch as a function of time.

Because Sharood and Wiggs do not disclose monitoring a motor protector of a compressor as a function of time, Applicants' invention is not taught or suggested by the prior art and reconsideration and withdrawal of the rejection is respectfully requested.

In this manner, it is believed that independent Claims 1 and 10, as well as Claims 2-9, and 11-15, respectively dependent therefrom, are in condition for allowance in light of the art of record. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection.

DOUBLE PATENTING

Claims 1-14 are rejected under the judicially created doctrine of double patenting over Claims 5-16 of U.S. Patent No. 6,758,050 since the claims, if allowed, would improperly extend the “right to exclude” already granted in the patent.

Applicants submit herewith a Terminal Disclaimer in compliance with 37 CFR § 1.321(c) to overcome the non-statutory double patenting rejection. Accordingly, Claims 1-15 are believed to be in condition for allowance. Reconsideration and withdrawal of the rejection is respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the

Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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